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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,629

09/30/2005

Toru Kohda

10210/30

1800

7590 01/11/2008
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Chicago, IL 60610

EXAMINER

RIPLEY, JAY R

ART UNIT

PAPER NUMBER

3679

MAIL DATE

DELIVERY MODE

01/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,629	Applicant(s) KOHDA, TORU	
	Examiner Jay R. Ripley	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-6 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-6 and 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :09/06/2007, 11/27/2007, 12/12/2007.

DETAILED ACTION

Claims 3-6 and 8-11 are pending. No claims have been withdrawn. Claims 1, 2, and 7 have been cancelled.

Information Disclosure Statement

The information disclosure statements (IDS) filed on 09/06/2007 and 11/27/2007 were considered by the examiner.

The Examiner notes that reference A6 in the IDS filed on 09/06/2007 and the IDS filed on 12/12/2007 were not considered as the references are not in accordance with 37 CFR § 1.98.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second spring as recited in claim 4 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 3-5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meeske (EP 0 351.438 A1) in view of Wayne (U.S. 5,323,812) and Mullins (U.S. 5,255,714).

In regard to claims 3 and 8, Meeske discloses in Figure 1 and Figure 2, below, a pipe coupling comprising

a socket and a mating plug insertable into the socket for coupling engagement,
the socket including:

a cylindrical socket body (1) having a first through aperture extending radially therethrough (as observed in Figure 1, below);

a locking element (the ball 3 furthest from the plug in Figure 1, below) radially movable within the first through aperture, the locking element being movable between a first radial position wherein the locking element is engaged with a locking recess (7) on the plug (as observed in Figure 2 and column 2, lines 31-35) so as to inhibit disconnection of the plug from the socket and a second radial position wherein the locking element is radially outwardly displaced from the first radial position and disengaged from the locking recess (as observed in Figure 1) to allow disconnection of the plug from the socket;

a sleeve (4) disposed around the socket body and having a locking surface (as observed in Figure 1, below) adapted to hold the locking element against radial outward movement (as observed in Figure 1, below) and prevent movement of the locking element from the first radial position to the second radial position and an unlocking surface adapted to allow movement of the locking element from the first radial position to the second radial position, the sleeve being axially movable (as observed when comparing Figure 1 and Figure 2) between a locking position wherein the locking surface is positioned radially outwardly of the locking element and an

unlocking position wherein the unlocking surface is positioned radially outwardly of the locking element; and

a spring (as observed in Figure 1, below) for biasing the sleeve toward the locking position,

the plug including:

a coupling end directed toward the socket (as observed in Figure 1, below); and

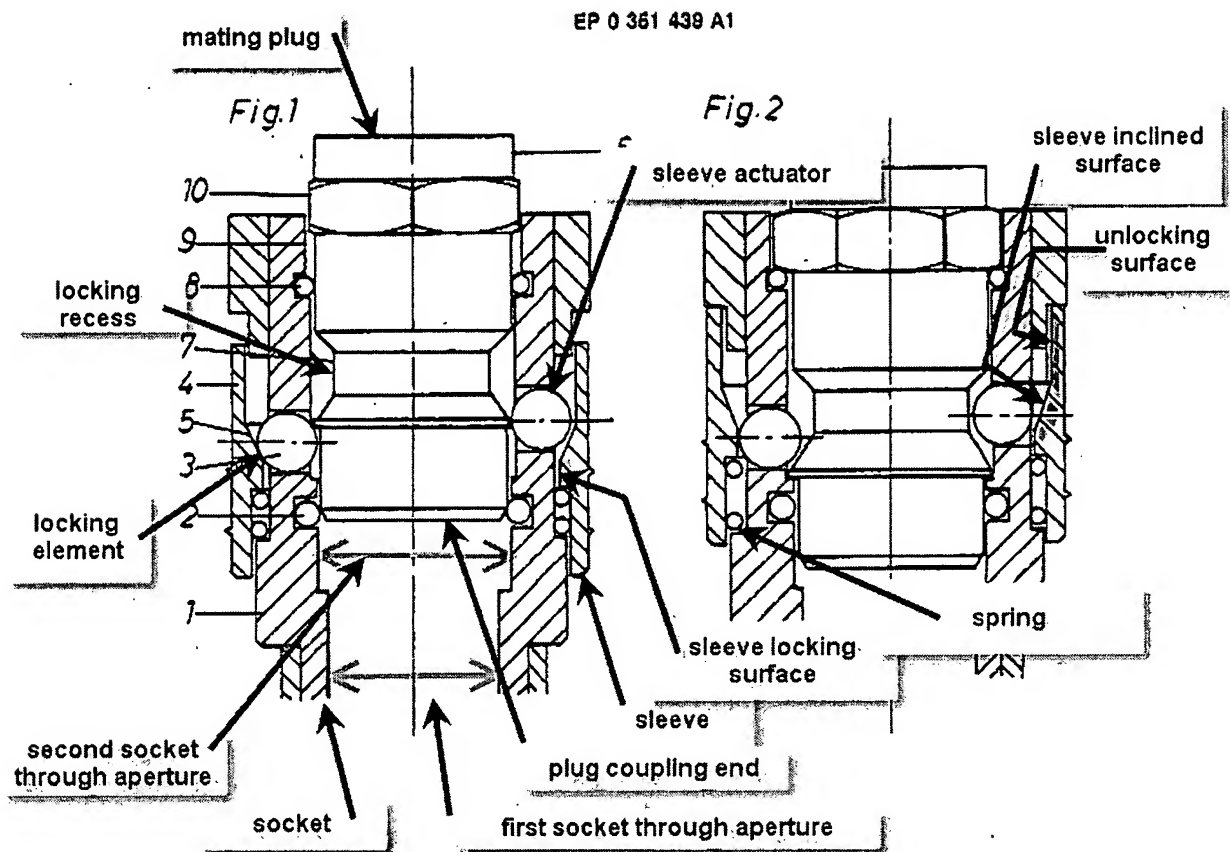
a cylindrical surface extending from the coupling end in a direction away from the socket, the locking recess (as observed in Figure 1, below) being defined on the cylindrical surface,

the coupling end of the plug being slidably engaged with the locking element located in the first radial position to cause radial outward movement of the locking element when the plug is inserted into the socket (as observed in Figure 1),

the socket characterized in that:

the socket body comprises a second through aperture (as observed in Figure 1, below) located axially closer to the plug than the first through aperture and extending radially therethrough and a sleeve actuator (as observed in Figure 1, below) disposed in the second through aperture and movable between a radially inward position wherein the sleeve actuator is engaged with the coupling end of the plug upon insertion of the plug into the socket and a radially outward position wherein the sleeve actuator is located radially outwardly from the radially inward position (as observed in Figure 1, below); and

the sleeve has an inclined surface (as observed in Figure 1, below) inclined radially outwardly from the locking surface toward the unlocking surface, the inclined surface being engaged with the sleeve actuator when the sleeve is located in the locking position, the coupling end of the plug being engaged with the sleeve actuator upon insertion of the plug into the socket so that the sleeve actuator is radially outwardly moved to thereby cause axial movement of the sleeve against the bias of the spring and, thus, when the coupling end of the plug is brought into engagement with the locking element during advancement of the plug, the inclined surface is positioned at a radially outward position relative to the locking element, the coupling end of the plug radially outwardly urging the locking element against the inclined surface of the sleeve upon further insertion of the plug, thereby causing further axial movement of the sleeve (the invention of Meeske has the structure to so perform the functional recitation as can be observed in Figure 1 and Figure 2, below).



(Meeske Figure 1 and Figure 2)

Meeske discloses the claimed invention except for the sleeve comprising two sleeve elements and a stopper feature. Wayne teaches a pipe coupling with locking elements (6, 7) in Figure 1, below, wherein the sleeve comprises two elements (5, 8) to provide a quick disconnection of the coupling with a releasable locking sleeve (column 1, lines 38-41). As Wayne relates to pipe couplings with locking elements, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pipe coupling of

Meeske with the sleeve comprising two sleeve elements as taught by Wayne to provide a quick disconnection of the coupling with a releasable locking sleeve.

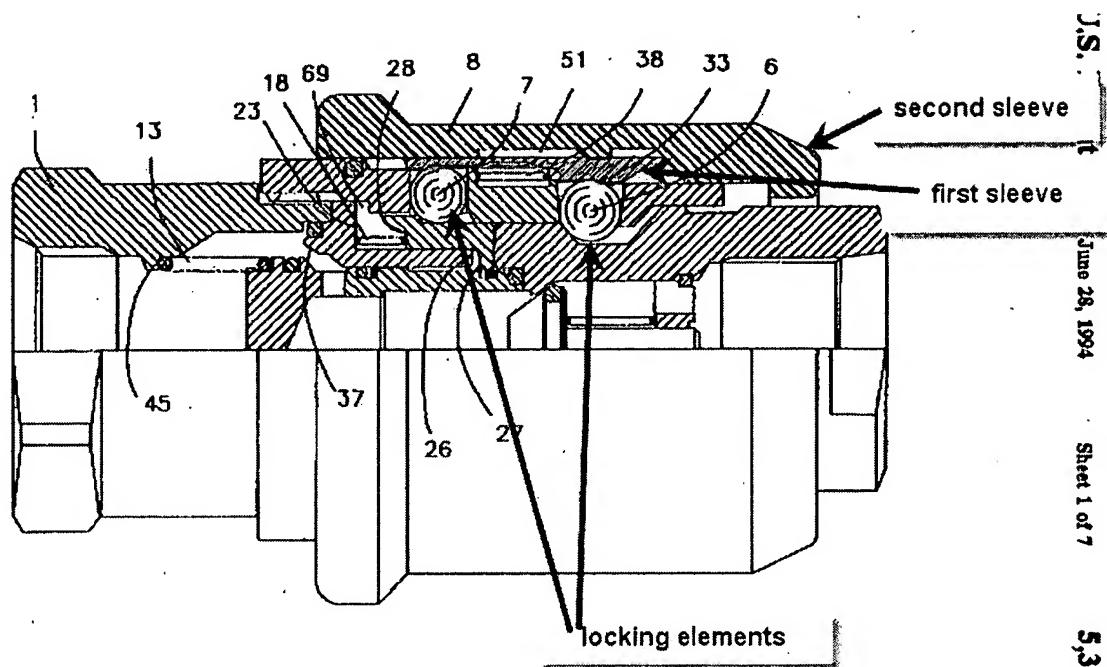
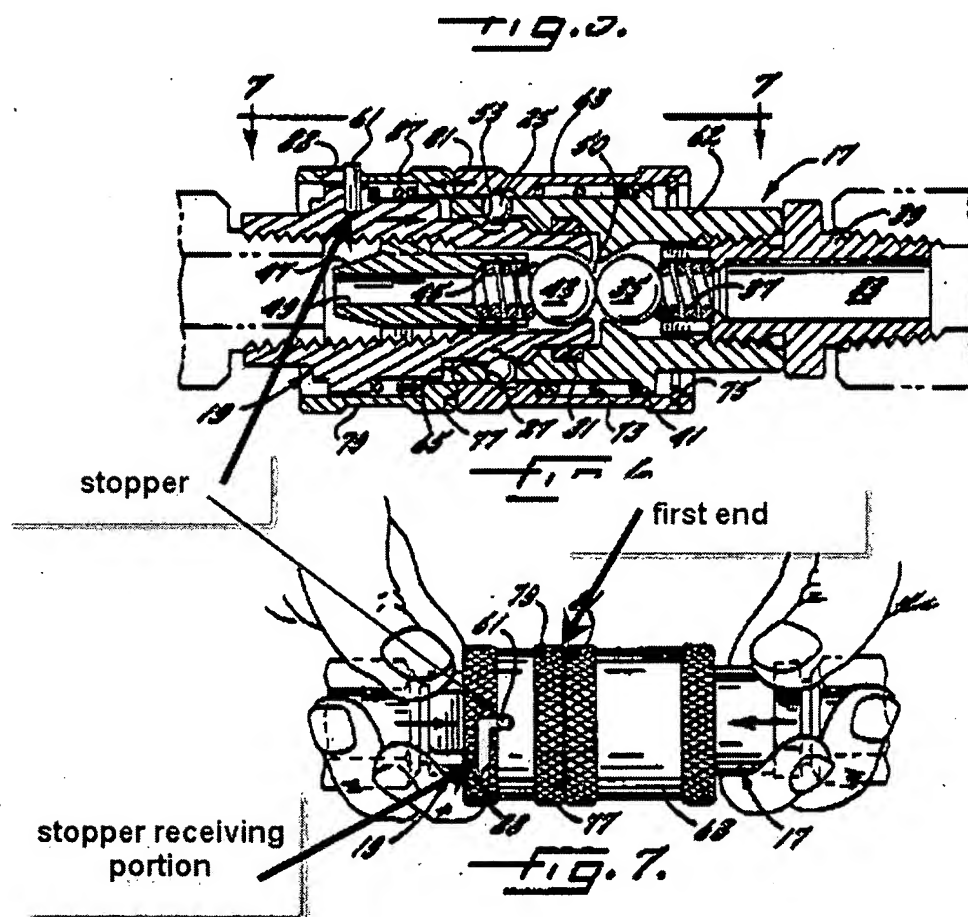


FIG. 1

(Wayne Figure 1)

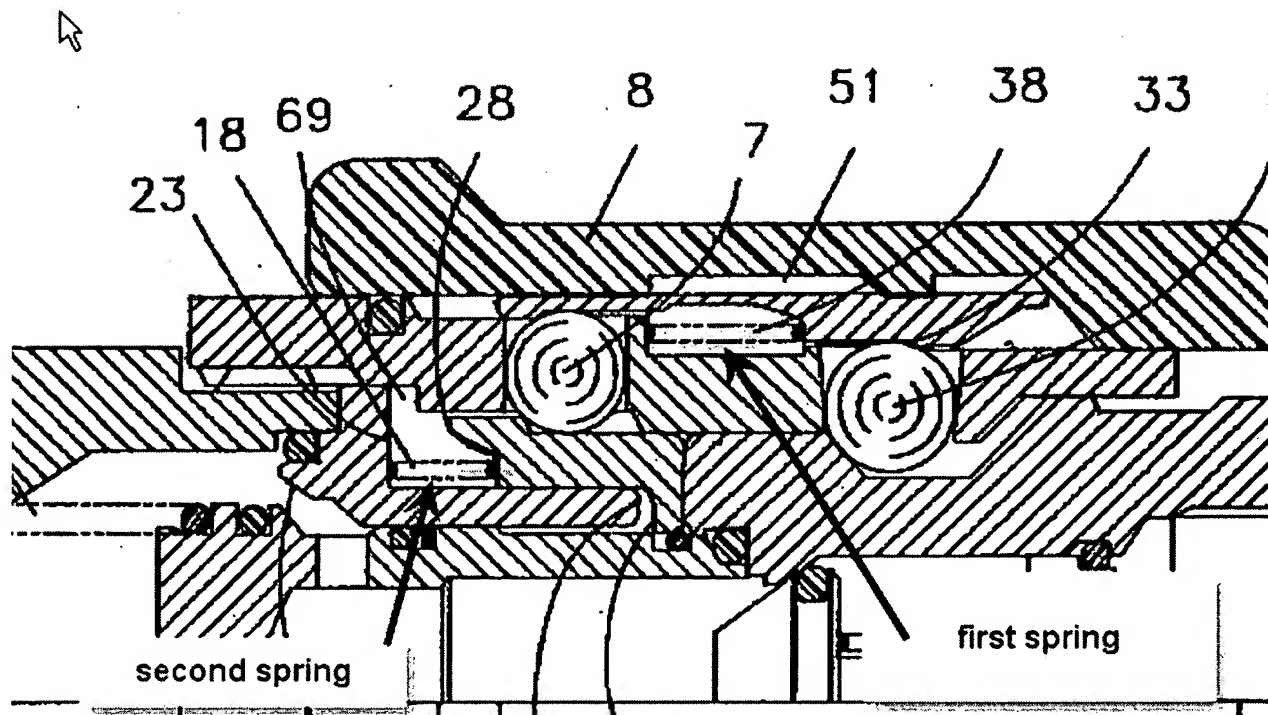
Further in regard to claims 3 and 8, Meeske in view of Wayne provide for the claimed invention except for a stopper feature. Mullins teaches a pipe coupling with locking elements in Figure 6 and Figure 7, below, with a stopper structure (pin 61 and slot 88) arranged on a coupling member, the stopper allowing a spring biased sleeve (79) to rotate between two angular positions and prevent axial movement of the sleeve at one of the axial positions (column 7, lines 48-52), to substantially preclude inadvertent uncoupling of the plug and the socket from coaxial relation (column 7, lines 45-52). As Mullins relates to pipe couplings with locking

elements, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the sleeve as provided for by Meeske in view of Wayne with the stopper structure as taught by Mullins to substantially preclude inadvertent uncoupling of the plug and the socket from coaxial relation



(Mullins Figure 6 and Figure 7)

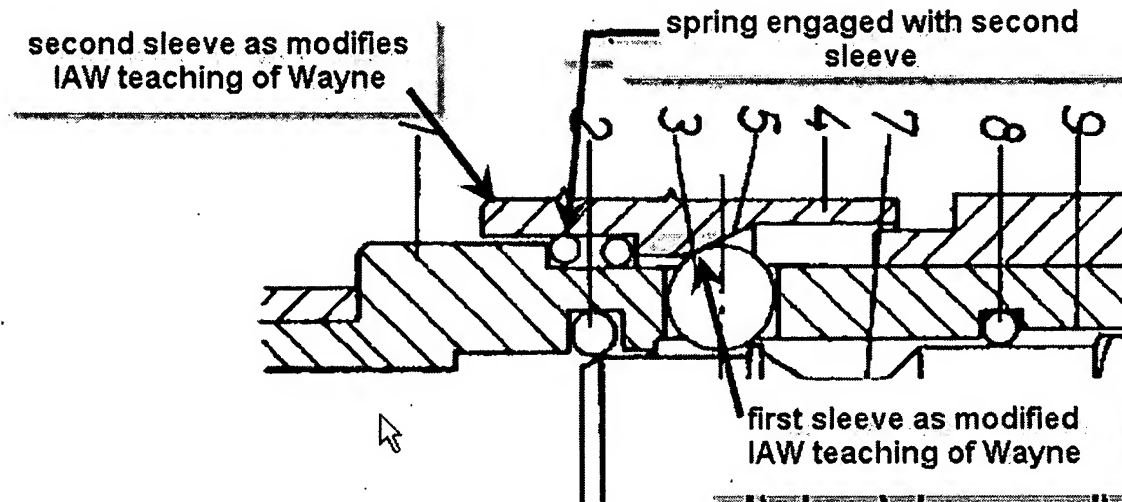
In regard to claim 4, Meeske in view of Wayne and Mullins provide for the claimed invention including a second spring. Wayne also teaches a second spring (18), as observed in cut-out of Figure 1, below, to urge the sleeve toward the locked position (column 4, lines 18-20). As Wayne relates to pipe couplings with locking elements, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the pipe coupling as provided by Meeske in view of Wayne and Mullins with a second spring as further taught by Wayne to urge the sleeve toward the locked position.



(Wayne cut-out of Figure 1)

In regard to claim 5, Meeske further provides for a coil spring disposed around the socket body having one end located at one position on the socket body and engaged with the first sleeve to urge the first sleeve toward the locking position, and an other end engaged with the second

sleeve (a coil spring as indicated by the symbol used in Meeske Figure 1, a cut-out shown below, the recognized technical drafting symbol for a coil spring).



(Meeske cut-out of Figure 1)

Claims 6, 9, 10, and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Meeske in view of Wayne and Mullins as applied to claims 3-5 and 8 above.

In regard to claims 6, 9, 10, and 11, Mullins, in Figure 6 and Figure 7, above, provides:
the sleeve (79) having a first end adjacent to the plug (19) and a second end remote from the plug,

wherein the stopper receiving portion includes a slot (88) extending from the second end toward the first end of the second sleeve,

wherein the stopper (61) extends radially outwardly from the fitting (as observed in Figure 6)

Mullins is silent as to how his teachings would be applied to the structure of the pipe coupling of Meeske in view of Wayne. However, Mullins teaches that the stopper structure is to

substantially prevent uncoupling of the plug and socket (column 7, lines 45-52). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose a stopper structure such that the stopper would be engaged with the second end of the sleeve when the sleeve is located in a first angular position, the stopper being axially aligned with the slot to allow the sleeve to be moved to a second axial position when the sleeve is placed in the second angular position to substantially prevent uncoupling of the plug and socket.

Double Patenting

Applicant is advised that should claim 3 be found allowable, claim 8 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Response to Arguments

Applicant's arguments filed 06 December 2007 have been fully considered but they are not persuasive.

Concerning the Applicant's assertion in page 8 of the reply filed 06 December 2007 that the drawing objections under 37 CFR 1.83(a) for failing to show every feature of the invention specified in the claims, i.e. the second spring as recited in claim 4, should be withdrawn, the argument is not persuasive. First, in none of the original figures does the reference character

“24”, a spring, appear with the reference character “134”, a coil spring. This lack of the two spring indicating reference characters being in the same original figure is to be expected as none of the original figures shows two springs. Second, the original specification only discloses the reference character “24” in the teaching of the embodiment shown in original Figures 1-6 (paragraphs 0055-0060) and the reference character “134” in the teaching of the embodiment shown in original Figures 7-12 (paragraphs 00645-0067). As such, the original drawings do not show a single figure with both a first spring and a second spring and the drawing objection stands.

Concerning the Applicant’s assertion in page 9 of the reply filed 06 December 2007 that the prior art of Wayne (U.S. 5,323,812) fails to teach a second sleeve, the argument is not persuasive. It appears that the Applicant is arguing a non-recited feature, i.e. that the second and first sleeves be readily moveable in relation to one another. Nowhere in claim 3, lines 45-51, nor claim 8, lines 47-53, is it recited that the first and second sleeve be readily moveable in relation to one another. Further, the functional recitation in the noted claims recitation passages can be performed without the first and second sleeves being readily moveable in relation to one another. As such, the rejections stand.

Concerning the Applicant’s assertion in pages 9-10 of the reply filed 06 December 2007 that the prior art of Wayne (U.S. 5,323,812) fails to teach a second spring for urging the second sleeve forward, the argument is not persuasive. It has been held that the test for obviousness is not whether the features of one reference may be bodily incorporated into the other to produce the claimed subject matter but simply what the combination of references makes obvious to one of ordinary skill in the pertinent art. *In re Bozek*, 163 USPQ 545 (CCPA 1969). Wayne teaches a

second spring to urge a second sleeve forward and the claim limitations are met. The Examiner notes that simply "urging" does not require the two the first and second sleeves be readily moveable in relation to one another. Further, the functional recitation in claim 3, lines 50-51, and claim 8, lines 52-53, of "said second sleeve being rotatably moves on said socket between a first angular position and a second angular position" does not state what is the motive force doing the moving; as such, anything, including manual manipulation, can be the motive force. If the Applicant intends the second sprig to be the motive force, it should so be recited in the claims and not inferred by the specification. The specification is simply to allow an understanding of the claimed invention and limitations shall not be placed upon the claims based upon what is taught in the specification.

Concerning the Applicant's discussion in page 10 of the reply filed 06 December 2007 regarding the potential double patenting objection to claim 8 be made should claim 3 be found allowable, the argument is not persuasive. The phrase "In a pipe coupling" as recited in the preamble of claim 3 is open, therefore allowing inclusion of all matter that is recited in a claim with the preamble of "A pipe coupling", as in the preamble of claim 8. Further, both claim 3 and claim 8 are open, i.e. the claims are replete with the terms "including", comprising" and the phrase "characterized in". As such, due to the essentially identical wording of instant claim 3 and instant 8, the Examiner maintains that it is proper to advise the Applicant that claim 8 will be objected to for double patenting should claim 3 be found allowable.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay R. Ripley whose telephone number is 571-272-7535. The examiner can normally be reached on 01:00 P.M. - 8:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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